

Claims

1. A machine for producing a tissue web, comprising:
a forming region with at least one circulating, continuous dewatering wire with
zonally variable wire permeability.

2. The machine according to claim 1, wherein said at least one dewatering
wire is provided in an initial dewatering region.

3. The machine according to claim 1, further comprising a former which
includes a forming element and two circulating, continuous dewatering belts, at least
one of which comprises said at least one dewatering wire with zonally variable wire
permeability;
said two circulating belts being arranged to converge to form a stock inlet nip,
and then being guided over said forming element, as an outer belt, which does not
come into contact with said forming element and as an inner belt, wherein at least one
of said outer belt and said inner belt comprise said at least one dewatering wire with
zonally variable wire permeability.

4. The machine according to claim 4, wherein said forming element
comprises a forming roll.

5. The machine according to claim 3, wherein said former comprises a double wire former.
6. The machine according to claim 3, wherein said former comprises a crescent former, wherein said outer belt is formed by said at least one dewatering wire with zonally variable wire permeability and wherein said inner belt is formed by a felt belt.
7. The machine according to claim 1, wherein said at least one dewatering wire comprises a woven material formed of warp and weft threads.
8. The machine according to claim 7, wherein zones of variable wire permeability of said at least one dewatering belt are formed by weaving threads at least one of a variable diameter and variable weaving pattern.
9. The machine according to claim 1, further comprising a conditioning device assigned to said at least one dewatering wire.
10. The machine according to claim 9, wherein said conditioning device comprises a wire cleaning device.
11. A process for producing a tissue web in a tissue machine, the process comprising:

forming the tissue web in a forming region of the tissue machine, wherein the forming region includes at least one circulating, continuous dewatering wire having zonally variable wire permeability.

12. The process according to claim 11, further comprising performing dewatering at a machine speed that is greater than approximately 1300 m/min.

13. The process according to claim 12, wherein the dewatering is performed at greater than approximately 1500 m/min.

14. The process according to claim 13, wherein the dewatering is performed at greater than approximately 1800 m/min.

15. The process according to claim 11, further comprising using the at least one dewatering wire in an initial dewatering region.

16. The process according to claim 11, further comprising the use of a former which includes a forming element and two circulating, continuous dewatering belts, at least one of which comprises said at least one dewatering wire with zonally variable wire permeability; the two circulating belts being arranged to converge to form a stock inlet nip, and then being guided over the forming element, as an outer belt, which does not come into contact with the forming element and as an inner belt, wherein at least one of the outer belt and the inner belt comprise the at least one

dewatering wire with zonally variable wire permeability.

17. The process according to claim 16, wherein the forming element comprises a forming roll.

18. The process according to claim 16, wherein the former comprises a double wire former.

19. The process according to claim 16, wherein the former comprises a crescent former, wherein the outer belt is formed by a dewatering wire with zonally variable wire permeability and wherein the inner belt is formed by a felt belt.

20. The process according to claim 11, wherein the at least one dewatering wire comprises a woven material formed of warp and weft threads.

21. The process according to claim 11, wherein zones of variable wire permeability of the at least one dewatering belt are generated by using weaving threads comprising at least one of variable diameter and variable weaving pattern.

22. The process according to claim 11, wherein the at least one dewatering wire is used in a region in which a dry content of the tissue web is less than approximately 20%.

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23. The process according to claim 22, wherein the dry content of the tissue web is less than approximately 12%.
24. The process according to claim 23, wherein at least one dewatering wire is used in an initial sheet forming region at a dry content less than approximately 6%.